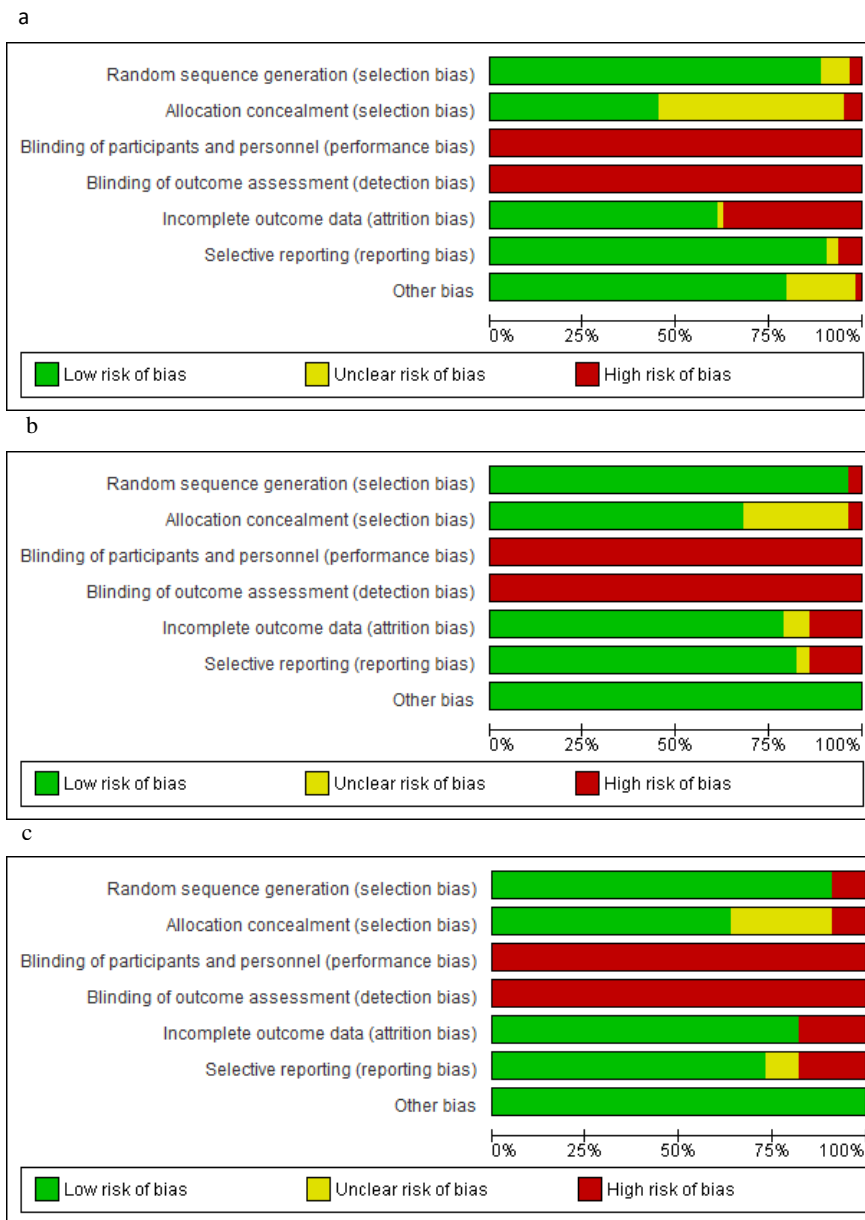


## **Supplementary material F\***

### *Risk of bias of the included studies*

Due to the nature of the interventions and the patient reported outcome measurement, blinding of participants, personnel and outcome assessment was not possible. For the other five RoB domains, behavioural studies had the lowest RoB relative to exercise studies, followed by combined intervention studies. Exercise studies had the highest RoB relative to behavioural and combined intervention studies. In exercise studies, random allocation to arms was unclear or broken in 11% of studies, 53% of studies did not provide sufficient information on allocation concealment, and 39% of studies had incomplete outcome data. For behavioural and combined intervention studies the ratings across these domains were, 3%, 32%, 21% and 9%, 36%, 18% respectively. Reporting bias was identified in 9% of exercise studies compared to 18% and 33% of behavioural and combined intervention studies.



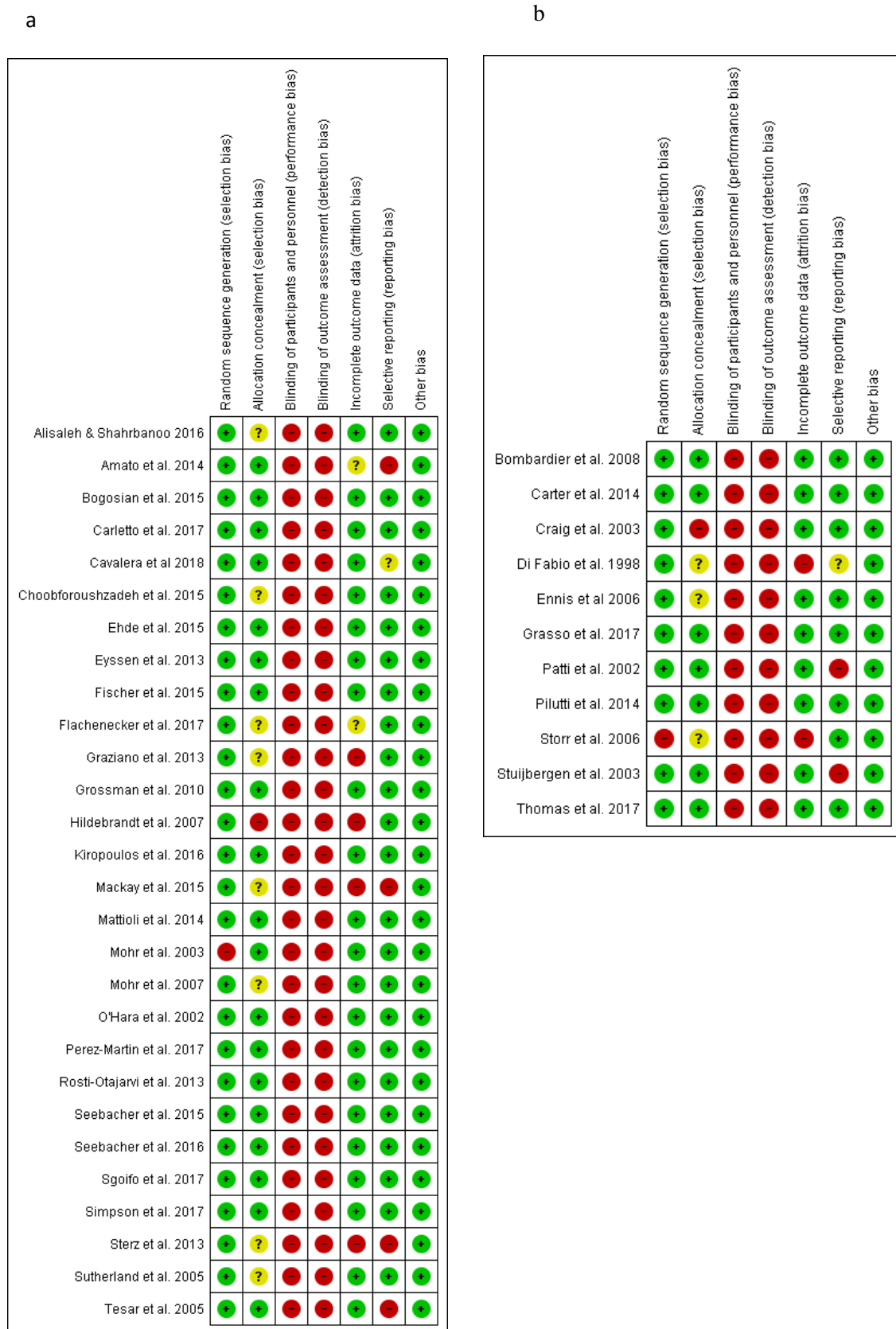
**Figure F1.** Risk of bias item presented as percentages across all included studies; a: Exercise, b: Behavioural, and c: Combined interventions.

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Ahmadi et al. 2013	?	?	?	?	?	?	?
Alguacil Diego et al. 2012	?	?	?	?	?	?	?
Aydin et al. 2014	?	?	?	?	?	?	?
Azimzadeh et al. 2013	?	?	?	?	?	?	?
Bansi et al. 2012	?	?	?	?	?	?	?
Brichetto et al. 2015	?	?	?	?	?	?	?
Brichetto et al. 2013	?	?	?	?	?	?	?
Briken et al. 2014	?	?	?	?	?	?	?
Bulguroglu et al. 2017	?	?	?	?	?	?	?
Cakit et al. 2010	?	?	?	?	?	?	?
Castro-Sanchez et al. 2012	?	?	?	?	?	?	?
Collett et al. 2011	?	?	?	?	?	?	?
Coote et al. 2017	?	?	?	?	?	?	?
Dalgas et al. 2010	?	?	?	?	?	?	?
Dodd et al. 2011	?	?	?	?	?	?	?
Ebrahimi et al. 2015	?	?	?	?	?	?	?
Feys et al. 2017	?	?	?	?	?	?	?
Frevel et al. 2015	?	?	?	?	?	?	?
Gandolfi et al. 2014	?	?	?	?	?	?	?
Gandolfi et al. 2015	?	?	?	?	?	?	?
Garrett et al. 2012	?	?	?	?	?	?	?
Geddes et al. 2009	?	?	?	?	?	?	?
Hayes et al. 2011	?	?	?	?	?	?	?
Hebert et al. 2018	?	?	?	?	?	?	?
Hogan et al. 2014	?	?	?	?	?	?	?
Hugos et al. 2017	?	?	?	?	?	?	?
Kalron et al. 2017	?	?	?	?	?	?	?
Kargarfard et al. 2017	?	?	?	?	?	?	?
Kerling et al. 2015	?	?	?	?	?	?	?
Kern et al. 2013	?	?	?	?	?	?	?

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Kucuk et al. 2016	?	?	?	?	?	?	?
Learnmonth et al. 2011	?	?	?	?	?	?	?
Learnmonth et al. 2017	?	?	?	?	?	?	?
Lutz et al. 2017	?	?	?	?	?	?	?
McCullagh et al. 2008	?	?	?	?	?	?	?
Mokhtarzade et al. 2017	?	?	?	?	?	?	?
Mostert et al. 2002	?	?	?	?	?	?	?
Negahban et al. 2013	?	?	?	?	?	?	?
Oken et al. 2004	?	?	?	?	?	?	?
Ozkui et al. 2018	?	?	?	?	?	?	?
Petajan et al. 1998	?	?	?	?	?	?	?
Pilutti et al. 2016	?	?	?	?	?	?	?
Plow et al. 2009	?	?	?	?	?	?	?
Pompa et al. 2017	?	?	?	?	?	?	?
Romberg et al. 2005	?	?	?	?	?	?	?
Sabapathy et al. 2011	?	?	?	?	?	?	?
Samaei et al. 2016	?	?	?	?	?	?	?
Sangelaji et al. 2011	?	?	?	?	?	?	?
Sangelaji et al. 2014	?	?	?	?	?	?	?
Schutz et al. 2004	?	?	?	?	?	?	?
Siengsukon et al. 2016	?	?	?	?	?	?	?
Sjoberg et al. 2014	?	?	?	?	?	?	?
Smith et al. 2012	?	?	?	?	?	?	?
Straudi et al. 2014	?	?	?	?	?	?	?
Straudi et al. 2016	?	?	?	?	?	?	?
Talner et al. 2013	?	?	?	?	?	?	?
Talner et al. 2016	?	?	?	?	?	?	?
Tarakci et al. 2013	?	?	?	?	?	?	?
Uszynski et al. 2014	?	?	?	?	?	?	?
Uszynski et al. 2015	?	?	?	?	?	?	?
van den Berg et al. 2006	?	?	?	?	?	?	?
Vaney et al. 2012	?	?	?	?	?	?	?
Veitkonja et al. 2010	?	?	?	?	?	?	?
Vermohlen et al. 2018	?	?	?	?	?	?	?

**Figure F2.** Authors judgments about each risk of bias item for each included exercise study.



**Figure F3.** Authors judgments about each risk of bias item for each included behavioural (a) and combined interventions (b) studies.

\* RoB ratings of studies included in the primary fatigue review available elsewhere (1)

1. Moss-Morris R, Harrison AM, Safari R, Norton S, van der Linden ML, Picariello F, et al. Which behavioural and exercise interventions targeting fatigue show the most promise in multiple sclerosis? A systematic review with narrative synthesis and meta-analysis. *BRT*. 2019;103464.